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STUDY PROJECT

JAPANESE ECONOMIC VICTORY OVER AMERICA: FACT OR FICTION?

BY

COLONEL DANNY L. ABBOTT and LIEUTENANT COLONEL R. LEE BANDEL

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JAPANESE ECONOMIC VICTORY OVER AMERICA: FACT OR FICTION?

AN INDIVIDUAL STUDY PROJECT

by

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ABSTRACT

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Today, economic competition, more so than military competition, is viewed as the key to national power and indeed to national survival. Except for the United States, all of the world's industrial economies lay in ruins at the end of World War Not surprisingly, until the beginning of 1980s, the United States reigned supreme as the world's only economic super power. Since the end of World War II, the economies devastated by the war have rebuilt, and some believe that Japan is now challenging the preeminent economic position of the United States. alarmist view is that the United States has lost or will lose its status of the world's leading economic power to Japan. purpose of this paper is to evaluate Japan as our major competitor and to determine whether Japan's world economic standing will diminish the United States' critical economic element of power. Demographic, social, and economic data for both countries will be reviewed, trends identified, and conclusions drawn.

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CHAPTER I

INTRODUCTION

It is currently in vogue to believe that the "cold war" is over and that "we", meaning the capitalist countries, have won-with the United States leading the charge. What follows this rather smug statement is inevitably a hands wringing discussion of when the "economic war" started and who's winning. The prime combatants normally compared in this "war" are the United States and Japan, although most involved in the discussion will furtively acknowledge other possible threats, such as the European Economic Community of 1992 and the newly industrial countries of Asia.

The conventional wisdom then offers various outcomes: we have already lost; we are losing; we have won; or we are winning. Two of these premature outcomes—lost and won—are certainly incorrect since they presuppose a singular decisive engagement with clear winners and losers.

On a micro-economic level battles can be, at a fixed point in time, decisively won or lost. But on a national macro-economic level, it is less easy to determine decisive points of

victory or defeat. In fact, the won or lost view misses the whole point of the ever changing world of economic competition, where advantage shifts from competitor to competitor and back again. The real questions are, comparatively, where are we? and what are our future prospects? The reason these questions are important is that now, more than ever before, successful economic competition and not military competition is being judged as the critical measure of national power and the key to national survival.

The purpose of this paper, therefore, is to evaluate Japan as our major competitor and to determine whether Japan's world economic standing will diminish the United States' critical economic element of power. First, we will review those factors that propelled Japan along the path to economic super status power. Then, we will analyze Japan's demographic, social and economic characteristics to determine whether any trends exist that could affect Japan's economic standing. Finally, we compare Japanese and American demographic, social, and economic factors to determine whether America's economic standing may be in jeopardy.

BACKGROUND: WHAT MADE JAPAN AN ECONOMIC GIANT

Cultural Values

In order to understand the forces that have propelled Japan into the top echelons of economic power, we must understand the Japanese society. Let's consider those national traits that set Japan apart from all other nations, even its Asian neighbors.2

Probably the best and most thorough discussion of these "core values of Japanese culture" may be found in, The False Promise of the Japanese Miracle.3 The authors identify these values as "(1) amae (dependence), (2) on (duty), (3) giri (social obligation), and (4) ninjo (human feeling)."4 What is important about these traits is that they are shared by all members of Japanese society, and that they posit a two-way street of mutual obligations. Dependence does not simply mean that the worker is dependent on the company that he works for; it means as well that the company dependends on him. Not only does he have a duty to the company, but the company has a duty to him. In a broader social context, the worker and the company have a social obligation to each other and to the rest of Japanese society. turn, the society--including family, government and other businesses--has a social obligation to the worker and the company. In the truest and deepest sense, each is dependent on

the other, has a duty to each other and owes <u>giri</u> one to the other. All of this is surrounded by a commonly held view of what one should or should not be as a human being. This shared sensibility is called <u>ninjo</u>--human feeling.

These values could be summed up in the "golden rule"--do unto others as you would have others do unto you--if they were not tempered by the modifier of status. The position or status a person occupies in Japanese society determines the intensity and direction of these values. That is, status dictates how much these values apply and to whom they are directed.

Government/Industry Cooperation

For all practical purposes Japan is a racially homogeneous population consisting of primarily one ethnic group (Japanese 99.4%).5 This extraordinary level of racial purity will continue because "the Immigration Control and Refugee Recognition Act severely restricts the rights of foreigners to work in Japan."6 This homogeneity of population and the corresponding oneness of thought that stresses "harmony, consensus, and complimentary" is widely believed to be responsible for Japan's economic success.7

So how does this homogeneity enhance economic competitiveness? First, cooperation between government and industry, supported by the shared values <u>amae</u>, and <u>on</u>, enable the Japanese to establish and achieve difficult and worthwhile national goals. Thus, in 1962 the Japanese Ministry of

International Trade and Industry (MITI) identified certain industries as strategic to Japan's economic future and provided depreciation tax advantages to facilitate growth and export competitiveness.8 The following industries received depreciation allowances: shipbuilding-15%, autos-13%, steel-12%, machinery-13%, and textiles-10%, from 1962 to 1973.9 The success of this government industry cooperation is well know throughout the world. Japan is now a world class competitor in all these targeted industries.10

In 1970 MITI formally recognized the inter-dependence of many businesses by exempting 886 cartels from the Japanese Antimonopoly Law.11 This action legalized "keiretsu" and led to the establishment of "networks of financial and personal ties that bind Japanese subcontractor to manufacturer to wholesaler to retailer."12

Work Ethic

Because of their shared dependence and commitment to duty,
Japanese work longer hours than their counterparts in other
industrial countries.13 They not only voluntarily put in longer
hours each day but more often than not fail to take all of their
authorized vacation days.14 The Japan That Can Say "No", coauthored by Ishihara and Morita, sums up the idea of dependence
and duty: "Japanese company employees know that they are members
of a community bound together by a mutual fate for which they

bear the hardships of today in anticipation of a better future. There are many company presidents today in Japan who at one time or another served as union leaders. This fact makes present union leaders feel that they too may, sometime in the future, move into management positions within the company and therefore their long term interests are closely tied to the company."15

Thrift and Political Stability

However, other factors besides the traditional Japanese value system have contributed significantly to the economic success of Japan. The highest household savings rate in the industrial world [19%] has created an enormous pool of investment at extremely low rates--pre-tax cost of capital for manufacturers is now 5%.16 These high savings rates are not as a result of some inherent Japanese propensity to save; rather, the average Japanese does not feel wealthy so he feels a need to save for the proverbial rainy day.17

Government policies during the last forty years caused wealth to be concentrated in corporations and the government.18

Wages have not kept up with the cost of living, so the average Japanese now spends seventy-five percent of his income on housing and food.19 As Eichi states in an article in <u>Japan Quarterly</u>,

"Thus, Japan's economic "miracle" has been, and continues to be, sustained by low wages and an unequal distribution of income."20

But for how long is the critical economic question?

Likewise, political stability has been a fact of life since the end of World War II. The Liberal Democratic Party (LDP) has maintained a political majority during the post war era by pursuing a consensus policy supporting agriculture and business. The real power and continuity behind the politicians is, however, the senior bureaucrats of the major government agencies. This continuity has been a significant factor in the economic rise of Japan.

Industrial Competitiveness and Survival

Japanese industry has excelled in importing basic technology and converting it into new, high quality products.21 The transistor and the micro-chip are only two examples of how the Japanese have created thousands of products by improving imported technology. Even a cursory look at the shelves in any store will attest to how successful they have been at dominating the consumer electronics market. What is not seen is that the machinery and processes needed to manufacture such products are also sold primarily by the Japanese.

Japan is a country with few natural resources and not enough land to feed its population. Japan imports 50 percent of its grain and fodder crops--except for rice.22 Over 90 percent of its energy is produced by imported oil, coal and uranium.23 In order to pay for these necessities, Japan must export value-added products to survive.

In summary, Japan has become a world economic power out of necessity. It has accomplished this by capitalizing on its homogeneous society's shared common values. These values permeate the work place and are the sinews that bind government and industry together.

ENDNOTES CHAPTER I

- 1. Kobayashi Kaorli, "That Yen for Power," <u>Japan</u> <u>Quarterly</u>, Vol. 36, No. 2, April-June 1989, p. 217.
- 2. S. Prakarah Sethi; Nobuaki Namiki; and Carl L. Swanson, The False Promise of the Japanese Miracle, p. 8.
 - 3. <u>Ibid.</u>, p. 7.
 - 4. <u>Ibid.</u>, p. 7.
- 5. U. S. Central Intelligence Agency, <u>World Fact Book</u> 1989, p. 154.
- 6. Sngiyama Mitsunobu, "Should Foreign Workers Be Welcome," <u>Japan Quarterly</u>, Vol. 35, No. 3 July-September 1988, p. 260.
 - 7. <u>Ibid.</u>, p. 264.
- 8. David B Andretsch and Hideki Yamawaki, "R&D Rivalry, Industrial Policy, and U.S.-Japanese Trade," The Review of Economics and Statistics, Vol. 70, No. 3, August 1988, p. 440.
 - 9. Ibid.
 - 10. Ibid., p. 446.
 - 11. Audretsch and Yoimawaki, p. 440.
- 12. Elaine Kurtesbach, "Tight Economic Ties Bind Wholesaler to Retailer in Japan," <u>Patriot-News (Harrisburg)</u>, 3 December 1989, p. F4.
- 13. Sano Yoko, "Seven Mysteries of Long Working Hours," Japan Quarterly, Vol. 35, No. 3, July-September 1988, p. 248.
 - 14. IBID, p. 249.
- 15. Shintaro Ishihara, Akio Morita, <u>The Japan That Can Say</u> No, p. 45.
- 16. Andrew Tanzer, "How do You Shut the Darn Thing Off?" Forbes, 13 November 1989, p. 39.
- 17. Sasak, Takeshi, "The LDP Teeters in the Political Balance," <u>Japan Quarterly</u>, Vol. 36, No. 4, October-December 1989, p. 377.

- 18. Tanzer, p. 39.
- 19. P. Lewis Young, "Does the Future Belong to Japan?" Asian Defense Journal, February 1988, p. 11.
- 20. Shindo Eiichi, "Frozen in the Cold War: Another Look at Japan-U.S. Friction." <u>Japan Quarterly</u>, Vol. 36, No. 3, July-Septmber 1989, p. 280.
- 21. Akio Morita and Shintaro Ishihara, <u>The Japan that Can Say"No</u>", p. 27.
- 22. U.S. Central Intelligence Agency, <u>The World Fact Book</u> 1989, p. 155.
 - 23. <u>Ibid</u>, p. 155.

CHAPTER II

DEMOGRAPHIC TRENDS

Japanese demographic trends play on important role and have far reaching consequences for a countries economic and social institutions. This chapter evaluates those demographic trends that present the greatest challenges to Japan's prospects of remaining an economic super power.

Population

Japan's population growth during the past three decades reached over 123 million in July, 1989, while the United States population increased to over 248 million.1 From 1960 to 1989, the difference between the rates of population growth in the United States and Japan appears to be insignificiant. During the aforementioned period, Japanese population increased by 31 percent, while America's population increased by 37 percent.2 However, we should compare Japan's population growth with a more comparable nation—one that is similar in size and in population and, more importantly, one which shared the common goal of overcoming the economical and political devastation of World War

II. West Germany's population growth for the same period increased only by 10 percent.3 Without question, Japan's population has rapidly expanded during the past few decades and has thus provided a work force to fuel Japan's economic prowess.

Japan's population also presents an interesting phenomenon when compared with available land mass. The Japanese Archipelago, slightly smaller than the state of California, has a population density of 326 people per square kilometer or 844 people per square mile. Furthermore, Japan ranks first in the world for density per unit of arable land, 2508 people per square kilometer. Comparatively, the United States has a density of 132 people per square kilometer of arable land.4 So where do all the Japanese people live?

Japan's population is moving predominately toward an urbanized society. Over 80 percent of Japan's population live on the northern island of Honshu and over 76 percent of the population live in cities. Urbanization from 1965 to 1980s produced ten huge Japanese cities containing from one million to eight million people. As may be expected, the metropolis of Tokyo is the largest with 30.8 million people. Trends in the 1980's continued toward urbanization, but the concentration shifted from the major city centers to the suburbs.5 That is, larger cities continued to grow to the extent possible, but the major shift was toward suburban cities where more land was available—limited as it was. Consequently, Japan may be described as a population of cities.

Will Japan's population growth continue at the same pace and advance its standing as the 7th most populated nation in the world? Census experts who have accurately projected Japan's population trends for the past forty years indicate change towards the turn of the century. The rapid population growth has slowed significantly during the past years to a growth rate of .5 percent. This growth rate is expected to continue into the next century and will peak in the year 2009 at 131.96 million.6 After reaching this peak, the population will decline. On the other hand, the United States population growth will continue at a faster rate of 9.9 percent. The growth rate will decline to 5.3 percent in the year 2010, yielding a population of 282.58 million.7

But such growth numbers paint an unrealistic picture without considering societal responsibilities for life expectancy and infant mortality rates. As a point of reference, the 1935 life expectancy for Japanese men and women was 46.9 and 49.6, respectively, and the Japanese infant mortality rate was 106.7 per 1000 births.8 Japan's economic progress through the 1980s and Japan's inherent responsibility to improve quality of life initiatives and health care made the country a world leader in both life expectancy and infant mortality rates.

In 1989, Japan ranked number one in the world for life expectancy and infant mortality rates--rates slightly ahead of the United States. Japanese men now live to an average age of 76 years, and Japanese women enjoy an unparalleled average life

expectancy of 82 years. Infant deaths have decreased by over 1000 percent during the past five decades, with a 1989 infant mortality rate per 1000 births was 5.9 These rates are striking; they indicate Japan's willingness to meet social responsibilities. But such achievement mandates future obligations. Japan's political, economic, and social structures will have to meet the challenges of a society that lives longer and one that will eventually become a graying society.

Labor Force

Three trends are evolving in the Japanese labor force: The first impacts on work force size and employment potential. The next trend establishes relationship between the work force and an aging society. Finally, the third relates to the fair employment of women.

The Japanese labor force continues to support Japan's economic prowess with its sheer size and rate of participation.

The 1988 Japanese labor force consisted of 61.6 million personnel with a participation rate of 62.6 precent.10 America's 1988 workforce was 122 million with a 77.5 percent participation rate.11 As would be expected with Japan's immigration policy—one that maintains Japanese homogeneity and basically precludes immigration workers—the labor force consisted of and will most likely remain predominately Japanese, albeit approximately 940,000 Korean nationals born in Japan are part of the labor

force.12 In contrast, the United States is expected to continue its relatively open immigration policies.

Statistically, there does not appear to be a problem with employing Japan's large work force. Japan's unemployment rate during the past six years offers impressive evidence: it did not exceed 3 percent, and in 1988 it achieved a low of 2.5 percent.13 Japan's unemployment rate is half that of America's 5 percent unemployment rate.14 Along with the low employment rate, the ratio of jobs openings to job applicants exceeded one for the first time since 1974. Further, the average job openings increased in 1988 by 28.6 percent while the number of active job applicants decreased by 11.4 percent.15 Overall, Japan appears to offer an employee market. America's current unemployment rate is better than the previous five years—an unemployment rate that averaged between 7 and 8 percent.

Japan's average unemployment rate of 2.5 percent in 1988 is not the same for all regions or for all employment age groups.

Many of the larger cities—Tokyo in particular—have unemployment rates higher than the average because Japanese workers did not want the menial inter—city jobs. Tokyo's recent shortage of employees led to a request for foreign "guest workers." But, regional unemployment trends are not Japan's major concern.

Japan is more concerned about unemployment trends for certain Japanese age groups. Unemployment rates for males and females between the age groups 15 to 24 averaged 5 percent in 1988. The concern for this age group was not as prominent as the

concern for another age group, those employees 55 years or older.16 Many Japanese companies release employees under the lifetime employment system at age 55. At this age the retirement system provides questionable life support. Also, many older exemployees want to work and are actively seeking employment. Unfortunately, the only work available is part-time jobs. Given the post war baby boom, the 1960 age composition for a population 65-and-over was 9 percent.17 In 1988 this group increased to 11.2 percent.18 America's 1988 population percentage over 65 was 2.7 percent.19 The Population Research Institute of Tokyo's Nihon University project a considerable increase in the number of Japanese 65 and over during the next two decades.

The Population Research Institute evaluated numerous factors to project this "graying" society. The major factors were birth rates and age and rate of marriages. Simply stated, the birth rate in Japan has dropped to a record low of 11.1 births per 1000 population. Marriages also dropped to the lowest rates since 1954--5.7 couples per 1000 population. At the same time, the average age at marriage increased. The age at marriage --highest in a 10 year period--rose to 25.6 years for women and 28.3 years for men. The Japanese are marrying later because they first want to enjoy their professions and to become well-established professionally. They are not having children because they want the double-income buying power. But, the trends exist and so does the implications of an aging society. Age projections for Japan indicates a drastic increase for a

population 65 and over by the year 2020--24.6 percent of the total population.20 American age projections for the year 2010 indicate that 13.9 percent of the American population will be 65 years and older--a percentage that will decrease from 1990 onward.21

Japan is aware of their aging society and its social and labor force consequences. The Ministry of Labor submitted a proposal, Social Security Visions, to the Deit in October, 1989, to address the consequences of an aging Japanese society. The thrust of this proposal was to increase the retirement age to 65-an action taken by the United States years ago. The current retirement age for private companies ranges from 55 to 60 years.22 The proposal would benefit the labor force, but it could be perceived as postponing the social consequences and cost of caring for an aging society.

One alternative too offset the loss of employees due to the eventual exodus of an aging workforce is to increase the number of women in the work force. Japan appears to be moving toward this alternative, but not at a rapid pace. Statistics show a minute increase of women employees during the past three decades; but a more substantial yearly increase occurred in the late 1980s, about 1 percent annually. On a composite level, Japanese women currently hold about 40 percent of the labor market.23 Comparatively, American women hold 45 percent of the labor market.24 The length of female employment also rose slightly in the past few years. The average number of years a Japanese women

worked increased from 5.3 years in 1976 to 7 years in 1986.

Men's average work years in 1986 was 12.1 years.25

Any significant increase in Japanese female employment will be contingent on changing a culturally imbedded feeling of male superiority in spite of constitutionally mandated equal rights. This feeling, even during the rise to economic supremacy, held women subordinate to men in the Japanese society.26 Further, the Japanese have a strong prejudice against women working after marriage.27

Will the social pressures of a democratic society alter the culturally based feelings of male superiority? Japanese public opinion and legislation reflect some change toward institutionalizing women's equality. Recent Japanese public opinion polls--released by the Ministries of Labor and Defense-indicate that men and women are changing their attitudes toward women's equality. The percentage of men who were against women with a profession dropped from 57.7 percent in 1987 to 37.5 percent. Likewise, the same survey indicated a rise from 30.6 percent to 55.2 percent for men who were in favor of women having professions. What may be more important is how women feel about themselves. Women who were not in favor of women having a profession dropped from 38.7 percent in 1972 to 24.9 percent in 1987. Women who were in favor of women in the work force increased from 51 percent in 1967 to 68 percent in 1987. The struggle for women's equality will continue, but the statistics unquestionaly reveal a positive change in the way women feel

about professional careers. Men's feelings have changed on the equality issue, but to a lesser extent.28

A third party did, however, add teeth to the issue of women's equality. Japanese legislators followed America's lead and passed the Japan's Equal Job Opportunity Law in 1986. This law added impetus to equal job opportunities and treatment. Many Japanese corporations are taking the law seriously, so there are signs that women will be given equitable treatment in the job market. Already, the number of corporations who agreed to hire college graduates regardless of sex increased to 79.1 percent in 1988, compared with 36.3 percent before the law was enacted.29

In spite of the new law and a modest change in public opinion about women having a career, there is one inequitable practice that must be overcome to maximize the potential of women in the work force. In Japan, women simply do not receive equal pay for equal work. For example, the average monthly salary for office workers is \$1,350 for women and \$2590 for men. This is an extreme example because in the younger age bracket, up to 39 years old, women's pay has risen to 90 percent of what their male counter-part makes. The compensation comparsion for women to men in the 40 to 44 age bracket fails to meet the equality test. Even with recent increases, women in this age group made only 68.5 percent as much as men made. Since younger women are fairing better in their salaries, equitable compensation for women seems to be on the horizon. This trend in all probability is irreversible.30

In summary, key demographic trends could affect Japan's economy if inherent societal responsibilities are not satisfactorily met. Japan's population increase will continue at a slower pace during the next two decades before declining. Urbanization, in one form or another, will continue and will encumber existing infra-structures. Improved mortality and life expectancy rates will fuel the "graying" population and will tax social systems and introduce a labor force void. The work force can be increased through a given natural resource—women. Japan has recognized its own inherent demographic trends and has initiated actions to meet societal responsibilities. The scope of these actions could, however, adversely impact Japan's future economical standing.

CHAPTER II ENDNOTES

- 1. U.S. Central Intelligence Agency, The World Factbook, 1989, 1989, pp. 154 and 308.
- 2. Ruth Ledger Sivard, <u>World Military and Social Expenditures</u>, 1989, pp. 47-48.
 - 3. Ibid.
- 4. "Japan," Worldmark Encyclopedia of the Nations, 6th Edition, p. 150.
 - 5. Ibid.
- 6. "Japanese Population Trends: Births Declining--Society Aging," <u>Japan Report</u>, July-August 1988, p. 2.
- 7. U.S. Department of Commerce, <u>Statistical Abstract of the United States-1989</u>, p. 15.
- 8. Saburo Okita, "Japan's Quiet Strength," <u>Foreign Policy</u>, Summer 1989, p. 129.
 - 9. Ibid.
- 10. U.S. Department of Labor, <u>Foreign Labor Trends: Japan</u>, p. 129.
- 11. U.S. Department of Labor, <u>Handbook of Labor</u> <u>Statistics</u>, p. 15.
- 12. U.S. Department of Labor, <u>Foreign Labor Trends: Japan</u>, p. 7.
 - 13. U.S. Central Intelligence Agency, p. 309.
 - 14. <u>Ibid.</u>, p. 154.
- 15. U.S. Department of Labor, <u>Foreign Labor Trends: Japan</u>, p. 4.
 - 16. Ibid.
- 17. Saburo Okita, <u>The Developing Economies and Japan</u>, p. 121.
- 18. Japan Statistics Bureau, <u>Japan: Statistical Yearbook-1989</u>, p. 37.

- 19. U.S. Department of Labor, <u>Handbook of Labor</u> <u>Statistics</u>, p. 63.
- 20. "Japanese Population Trends: Births Declining--Society Aging." p. 2.
 - 21. U.S. Department of Commerce, p. 15.
- 22. Arioka Jiro, "Quieting Social Security Nightmares," Japan Quarterly, April-June 1989, pp. 141-142.
- 23. Organization for Economic Co-Operation, <u>OCED Economic Survey</u>, p. 19.
 - 24. Department of Commerce, p. 380.
- 25. "The Changing Role of Women in Japan," <u>Japan Report</u>, January 1988, p. 6.
- 26. U.S. Department of Labor, <u>Labor Law and Practice in Japan</u>, p. 9.
 - 27. Rodney Clark, The Japanese Company, p. 145.
- 28. "The Changing Role of Women in Japan," <u>Japan Report</u>, p. 6.
 - 29. Ibid.
 - 30. <u>Ibid</u>.

CHAPTER III

SOCIAL TRENDS

As important as demographic trends are to maintaining Japan's economic standing, the social demands of the Japanese society could have even more impact on Japan's economic standing. This chapter will not simply review the endless list of social factors that affects a society. Instead, the discussion will center on those social trends that have an ongoing or a projected impact on Japan's economic wealth. These trends pertain to work ethics, life time employment, labor relations, social benefit programs, and, finally, domestic consumerism.

Work Ethics

A point commonly debated among Western industrial nations—lately as well among several Japanese economic and social experts—is whether social and individual pressures can dislodge the old-fashioned Japanese work ethic. Few will disagree that the devotion of the Japanese worker toward the company vis—a—vis individualistic pursuits has been instrumental in making Japan a world economic giant. But will this cherished work ethic continue as a major factor in Japan's economic success?

If we compare America's Protestant work ethic with the Japanese Buddhist and Confucious work ethic, the answer would

be obvious. Japan would follow America's lead and change their work ethic toward one that is more individualistic and leisure-oriented. However, change of this nature, although possible, would defy Japan's long standing cultural beliefs.

Historically, Japan's work ethic never supported individual gains. Work is seen as a service of long commitment, "not purely an economic act but a spiritual and moral experience."1 The Japanese work because work itself is what makes life worth living. Most Americans work to improve their personal goals of self development and to gain rewards—not all Americans fit this mold, but many do. On the other hand, Japanese work more for the community or company. They feel a moral and social obligation rather than a desire for tangible benefits.

The idea of working to benefit a group over oneself does not preclude individual rewards. The individual is "part" of the company and treated accordingly. Management covets its workers beyond the worker-boss relationship of the traditional labor-relations arena. Managers subordinate themselves and genuinely respect their employees' feelings and desires. Also, employees are often involved in the decision-making process, so decision-by-consensus is the rule and not the exception. As stated earlier, the overriding relationship of the individual and the company is a kind of bonding. This feeling of oneness exists in certain sectors of the American economy, but definitely not to the same degree that it exists in Japan.

America is undergoing a conservative trend to reassert a work ethic that places greater value on cooperation and teamwork.

Opponents, however, cling to the traditional view of individual rights. Similarly, American workers remain suspicious about management-labor relations. All of these factors will have to be overcome if the American work ethic is to change.2

Japan's work ethic already supports an economy destined to succeed. Changes to the Japanese work ethic are possible, but any shift from group interests to individual rights would require intensified social pressures. One indicator that such social pressures exist is a feeling that the Japanese worker wants more leisure time. A typical Japanese worker catches a train at seven in the morning, has a quick lunch, stays in the office until at least six or often later, goes to eat and/or drink with a coworker or business associate, takes a late train home, and begins anew the next day. This ritual occurs Monday thru Saturday. Sunday, then, is a day of leisure—one that is often spent sleeping.3 The future may alter this demanding routine. Already certain public sector organizations are taking Saturdays off. But it is to soon to say whether the industrial sector will follow suit and take Saturdays off.

<u>Lifetime</u> Employment

Lifetime employment--coupled with seniority wages and enterprise unions--is known as one of "the three precious treasures of Japanese industrial relations."4 Lifetime employment has its roots with the family tradition of the old

zaibatsu--large Japanese families controlling commerce--and follows the principles of an apprenticeship. The present form of the lifetime employment system, including both blue collar and white collar employees, started after World War II--a crisis period where unions and workers tried to stabilize employment security.5 Following cultural ethics, the lifetime employment system has served to bond individual and company interests.

The bonding of the worker and the company levied a commitment from both parties. The worker agreed to dedicate his life to the company for wages and other conditions of employment. Conversely, the company agreed to provide work for the employees and care for their well-being. Both incurred a sense of obligation from social and cultural norms.

American businesses do not understand the highly acclaimed Japanese lifetime employment system. The system defies common American business practices; on occasion, it is necessary to reduce a work force and to release unproductive employees. However, the Japanese consider the bonding of the company and individual more important. So, once an employee has been hired, it is for a lifetime unless the employee commits some serious offense.

The hiring process is selective but not without fault.

Intense hiring competition exists between companies in the spring of each year. They all really try to hire the best university and high school graduates based on the prestige of the educational institutions and the academic records of the

applicants.6 But the hiring process does produce unacceptable employees. When management hires an unacceptable employee, the company accepts the fault. More importantly, management has a moral obligation to society to invest the time and money necessary to train and educate the employee. This is done on the premise that an unacceptable employee will become a future asset. The Japanese firmly believe that even if only one of five undesirable employees became productive, that employee's productivity will cover the shortfall of the other four employees. Further, losing the converted employee is a greater loss than maintaining four incompetents.7

As explained, the lifetime employment system—at surface value—appears to be one worth emulating. But what about the hidden agenda? Is the system really for lifetime when the employment tenure is from 25 to 55 years of age? Employees are asked to retire when their most productive years have passed. They are then left more or less to look out for themselves with a pension that may not support quality—of—life needs; they still want to work but cannot find jobs commensurate with their professional skills and experiences. Additionally, the system applies only to about 50 percent of the labor force. Small companies do not have a lifetime employment system, and women and temporary employees are excluded from the system. Further, consider the employment tenure of younger employees. Many leave the firm because of management failures and ineptitude. Some construe these departures as a preconceived management practice

to separate unacceptable employees and at the same time obtain cheap labor. Finally, mid-term entrants are paid the same as school entrants regardless of previous work experience.8

A stable work force offers a distinct advantage to an industrial nation. Is the Japanese lifetime employment system in the lead? Or is it really similar to America's industrial labor practices? Americans also have an employment tenure system of one fashion or another. Employees are protected by labor laws, union involvement, and actual tenured professions. Is Japan's lifetime employment system the best in the world? Will it meet the future workforce demands of a democratic industrial economy? Is it really so different from and superior to the American workforce?

Unions

The Japanese constitution assures the rights of workers to unionize. As established during the Occupation, workers have the right to organize, to bargain and to act collectively, free of government control and influence.

Japanese industry is represented primarily by enterprise unions.9 These unions are organized in one company only and mirror the social interests of the community. In 1988, the number of small enterprise unions increased to a high of 33,750.10

The strong point of the enterprise union is that union negotiators are basically free of national union pressures.

Union demands are therefore represented at the local level and are more in tune with the company's ability to meet labor demands. Management and labor realize that the company interests prevail and that without a team approach, the individual fails when the company fails. This process brings "heart and soul together."

Teamwork does not mean that union demands are not tough or that negotiations are not merciless. Bargaining methods are almost universal and Japan fits the mold. Union negotiators make ridiculously high demands; management counters with ridiculously low offers; and as often occurs, the two parties settle midstream. Japanese negotiation techniques are probably more intense than universal techniques. It is not uncommon, given a foreplay of extensive verbal abuse and shouting, that physical interaction occurs. Interestingly, the Japanese police seldom interfere because labor negotiations are protected by law as are individual rights.

Strikes are also not uncommon and are increasing in frequency. In contrast to American strikes, Japanese strikes rarely last very long. Many strikes last for a few hours and normally occur at midday or just before the end of work days. Common techniques include work slowdowns or work-to-rule strikes.12 Their key personnel stop working for a few hours and affect overall company production. The technique is popular because only a few workers are docked in pay. Labor disputes totaled 1,879 in 1988--an increase of 2.2 percent from 1987; they

involved 1.24 million workers--an increase of 14.2 percent from the previous year.13

Union participation has decreased during the past few decades. Thirty-nine percent of the work force belonged to unions in 1955.14 In 1988, union membership dropped to a new low of 26.8 percent of the work force. This reflects a yearly decrease of approximately 1 percent.15

The scope of national unionization increased considerably in the past two years. The principal undertaking was the formation of the Japanese Private Sector Trade Union Confederation (RENGO) in November 1987. The charter of RENGO calls for the first ever unification of all private sector industrial trade unions; national unification of government, construction, and services unions occurred years ago. The goals of RENGO are to raise the standard of living for Japanese employees to a level commensurate with American and Western Europe. At the same time, they seek to increase union participation. Additionally, RENGO is actively pursuing representation in the Japanese legislative body.16

Social Programs

The Japanese social program umbrella is comprehensive; it provides unemployment benefits, workmen's compensation, national health insurance and a national pension scheme.17 The social programs evolved from the post-war era. Program changes have not

been uncommon, particularly during the past decade. Program changes have met the social demands of an evolving democratic industrial nation. This evolution and increasing demands of the social programs will undoubtedly carry into the next century as Japan continues its economic growth. Two social programs that have undergone frequent changes and will continue to change are the pension and health-care plans.

Japan initiated a major program to stabilize pension benefits by combining all pension occupational plans into a national plan. In 1986, Japan modified the national plan to incorporate an amalgam of the three basic pension programs—the Employees' Pension Plan covering private—sector employees, the Mutual Aid Association covering government and public employees, and the National Pension plans for farmers.18 The national plan now insures that all citizens receive the same basic benefits. The national plans also made two other changes. Eligibility for pension benefits moved to age 65, and for the first time, spouses of insured employees were given pension coverage.19 The merger of all occupational pension plans into a national plan was not accomplished without public concern. Many citizens were upset because the premium and pension plans.

The new national plan does not solve all future requirements. The Ministry of Health and Welfare expects that premiums for the national pension plan will double by the year 2020. The bill payer for the increase will be both individuals

and employees--national, state or the private sector. Currently, 12.4 percent of the worker's salary is paid into the pension fund--a 50 percent split between employee and employer. By the year 2020, the pension fund cost is expected to reach 26 percent of salaries.20 The Deit is currently reviewing the national pension plan to determine necessary revisions for coping with the anticipated pension costs of an aging society. The scope of these legislative actions is not known at this time.

Health-care plans are also changing due to increased medical costs. The Employees' Health Insurance Act, a contributory plan for private sector workers, was changed in 1984. The government amended the health program to offset spiraling medical costs by increasing the percentage paid by workers for their medical costs. Prior to 1984, the worker paid minimal fees. Now the workers must pay 10 percent of the total charges for health care at clinics and hospitals.21 The same amendment also changed health-care coverage for retired employees. The burden shifted from the National Health Insurance, a municipality program, back to the national level Employees' Health Insurance Act. The consequence was a financial burden at the national level.

With its aging population, Japan will continue to face increases in health care. A fivefold cost increase has already been experienced during the past fifteen years. By the year 2020, the number of Japanese 75 years and older will triple in size to 1.5 million people. With five times the health-care cost

for people over 65, Japan will face health-care costs never previously experienced.22 The associated health cost to support the aging Japanese population is projected to increase from 1987 expenditures of \$137 billion per year to 2020 expenditures of \$825 billion per year.23

It remains to be seen how Japan will meet the increased societal responsibilities of caring for the aging population that made Japan one of the world's strongest economic powers. Japan initiated a new 3 percent consumption Tax in 1989 to replace direct forms of taxation.24 This tax may carry Japan's social security program into the next decade. If so, it will help relieve some of the resentment felt by the working class who sees itself paying for an aging society instead of its own future protection.

<u>Domestic</u> <u>Consumerism</u>

A great debate exists on whether social pressures will come to the forefront on domestic consumerism. Put another way, will the Japanese--whose tedious labor and personal sacrifices brought Japan to its economic standing--get tired of high consumer prices and demand major reforms?

Housing quality is poor. Also the cost of a house--by
American standards--is not within the reach of the middle class
Japanese. The quality of housing is primarily driven by a lack of competition. Japan's home building industry is as homogenous as

its society. The building industry has no foreign competition and does not compete internationally. So construction workers are not hardened to the pressures of the international marketplace. Hence, houses are of low quality and poorly constructed with thin walls, no insulation, and limited central heating facilities. Some houses contain central air and heating in bedrooms and dining rooms only, but these amenities are usually limited to the wealthy. How accessible is Japanese housing? Consider this: a "very" small three bedroom house that is 1 1/2 hours commuting distance, by train, from the center of Tokyo costs over \$1 million.25

The real problem in the high cost of housing is not material and construction, but it is the cost of land. How valuable is land? A 1.2 kilometer tract for a commuter train in Tokyo costs about \$8 billion.27

While land costs are driven by the amount of arable land available in Japan, the real cost of land is driven by the Japanese government. Tax structures and agricultural subsidies encourage the use of land for farming instead of housing developments—even to the point that many small farms are still located within the city centers. To the disgust of many Japanese, subsidized agriculture is commonly known to be inefficient and promotes high food costs. The alliance between property owners, farming lobby groups and legislators will insure the cost of land remains high if drastic reforms are not part of the Deit's future agenda.

Housing costs are only one dilemma facing Japanese policy makers. The cost of food also causes social unrest. The average Japanese household spends 50 percent of their income on food. A kilo, roughly 2 1/2 lbs., of beef cost around \$30. Likewise the price of rice--a surprise to most western nations-- is ten times the world price.28

Food costs so much for two reasons. Farmers, their lobbying groups, and unions are the first. This triumvirate keeps the price of food high by restrictive import licenses and quotas that effectively keep the Japanese market closed to foreign producers. The second contributor to high food costs is the Japanese distribution system—a layered structure that raises the price of consumer goods at every level. For example, consider the price of an imported necktie. The import agent buys the tie for \$28. He sells the necktie to a wholesaler for \$56. The tie is then sold to a department store for \$70. What does the customer end up paying for the necktie: try \$112.29!

The Japanese government is currently working with American negotiators to break the structural trade barrier imposed by the elusive distribution system and cartels. Japanese food processing firms are currently moving their businesses overseas because the costs of goods and labor are cheaper. The trade off for this overseas venture by the food processing firms is the loss of Japanese jobs. Until actions are taken to reduce the cost of consumer goods, Japanese consumers will continue to spend 70 percent more for retail goods than Americans pay for like

retail items. According to the Organization for Economic Cooperation and Development, the Japanese spend considerably more on consumption than Americans, but they end up with much less. The Japanese spend about \$13,500 a year and Americans spend \$12,500. However, it would only cost an American \$7,800 to buy the same consumer goods that cost the Japanese \$13,500.30

We can thus see that several social trends have a bearing on the Japanese economy. The Japanese worker has more of a loyalty to the company, while the American worker's loyalty is more to himself. Japan considers their lifetime employment system as one of the best employment systems in the world. Like the American employment system, the Japanese employment system is not without shortcomings or social pressures. Union functions and scope are similar in the United States and Japan. Japanese unions appear to be more bonded to the company. This bonding and company association is now subject to national unionization pursuits. Japanese social programs are changing almost yearly to meet societal demands for the aging population, particularly for pension and health-care plans. At the same time, social pressures are working in Japan to reduce the cost of housing and consumer goods. The ways Japan addresses these social interests will have a bearing on the economic wealth of Japan.

CHAPTER III ENDNOTES

- 1. Frank Gibney, <u>Miracle of Design: The Real Reason</u>
 <u>Behind Japan's Economic Success</u>, p. 26.
- 2. Kenneth J. Dillion, <u>Worlds in Colision: The U.S. and Japan Beyond the Year 2000</u>, p .17.
- 3. James Fallows, "The Hard Life," <u>The Atlantic</u>, March 1989, p. 24-25.
- 4. U.S. Department of Labor, <u>Foreign Labor Trends:</u> <u>Japan</u>, p. 13.
- 5. Parakash S. Sethi; Nobuaki Namiki; and Carl E. Swanson, The False Promise of the Japanese Miracle, p. 43.
 - 6. U.S. Department of Labor, p. 15.
- 7. Akino Morita and Shintaro Ishihara, <u>The Japan That Can Say "NO"</u>, 1989, p 45.
 - 8. Rodney Clark, The Japanese Company, p. 174-180.
- 9. "Japan," Worldmark Encyclopedia of the Nations, 1988, 6th, p. 156.
 - 10. U.S. Department of Labor, p. 26.
 - 11. Frank Gibney, p. 93.
 - 12. <u>Ibid.</u>, p. 96-97.
 - 13. U.S. Department of Labor, p. 6.
 - 14. Worldmark Encyclopedia of the Nations, p. 156.
 - 15. U.S. Department of Labor, p. 26.
 - 16. <u>Ibid</u>., p. 5.
 - 17. U.S. Department of Labor, p. 9.
- 18. Arioka Jiro, "Quieting Social Security Nightmares," Japan Quarterly, April-June 1989, p. 143.
 - 19. U.S. Department of Labor, p. 11.
 - 20. Jiro, p. 144.

- 21. <u>Ibid</u>., p. 142.
- 22. <u>Ibid.</u>, p. 143.
- 23. "Japanese Population trends: Births Declining-Society Aging," <u>Japan Report</u>, p. 2.
- 24. Larry Armstrong, "Takeshita Clears the Deck for Economic Reform," <u>Business Week</u>, 26 December 1988, p. 80.
- 25. Lewis P. Young, "Does the Future belong to Japan," Asian Defence Journal, February, 1988, p. 11.
 - 26. Fallows, p. 20.
- 27. Nathan Glazer, "The Enigma," The New Republic, 10 July 1989, p. 14.
 - 28. Young, p. 11.
- 29. Janice Fuhrman, "Mars Unwraps Secret of Japanese Market, <u>Sunday Patriot News (Harrisburg)</u>, 3 December 1989, p. 17.
 - 30. Fallows, p. 22.

CHAPTER IV

ECONOMIC TRENDS

There are numerous measures of economic activity. No attempt will be made to address all of them in this chapter. Only a few of the indicators most talked about during discussions regarding international economics will be reviewed. We intend to take the long view—to review the statistical data over the long term in an attempt to surmise future trends. As with any analysis of statistical data, different individuals will draw different conclusions from the same data. Statistics and statistical trends by themselves are nothing more than cold hard numbers. They say nothing of the changing personal or national motivations that can and do, in the long run, change the direction of a nation's economic future. The data will be presented, then possible influences for change will be indentified.

HISTORICAL PERSPECTIVE

Before discussing statistical data, it is important to set the historical stage. After World War II all of the world's industrial powers, except for those in the United States, lay in ruins. Their factories, cities, populations, and distribution systems were either destroyed or in disarray. It is not surprising, therefore, that the United States' share of world output was 45 percent in 1945.1 Nor is it particularly surprising that as the industrial countries rebuilt after the war, the United States' share of the world marked had declined to approximately 25 percent by 1960.2 In contrast, Japan's share of the world market has increased during the same time frame from approximately 4 percent to 14 percent today.3 The relative positions of Japan and the United States are projected to remain the same as they are today through the year 2010.4 If the percentages in 1945 are considered an aberration because of the war, then the United States' "share of industrial countries manufactured output has not declined. Its share of manufacturing employment and high-technology trade has continued to rise."5

Gross National Products

No discussion of economic trends would be complete without addressing Gross National Products (GNP). The 1988 GNPs, current dollars, for the United States was \$4,899 billion and \$2,867 billion for Japan.6 These numbers are derived by converting a country's total outputs of goods and services to dollars. This method does not take into consideration fluctuating values of a country's currency and hence its purchasing power in the country's home markets. A method used to determine a country's GNP that does take into account its

currencies' value is the Purchasing Power Parity (PPP)

conversion. This is accomplished by pricing a common basket of one-hundred goods and services and converting the total output to dollars. When measured using the PPP method, the 1987 United States' GPN was \$4,436 billion and Japan's was \$1,608 billion.7

Using the PPP method, the size of the United States GNP grows from 1.7 times the size of Japan's to 2.7 times the size of Japan's. As a consequence of the distribution inefficiencies in the Japanese economy, the "price rise from the factory to the consumer in Japan is three-hundred percent," whereas it is only 75 percent in the United States.8 This is the primary reason for the differences between the straight dollar conversion GNPs and the GNPs using the PPP method.

Japan's GNP grew dramatically over the past thirty years, although the rate of growth during the last decade has slowed considerably. In 1960 Japan's real GNP in 1988 dollars was \$305 billion, by 1970 it grew to \$829 billion, by 1980 \$1,301 billion and by 1988 to \$1,758 billion.9 This represents an annual growth rate of 10.6 percent for the 1960s, 4.6 percent for the 1970s, and 4.4 percent from 1980 through 1988.10 In contrast, the annual growth rate for the United States was 3.8 percent during the 1960s, 2.8 percent for the 1970s, and 4.1 percent for 1980 through 1988.11 From this data, it appears that, following Japan's explosive growth in the 1960s and 1970s, the United States' and Japan's economies are growing at approximately the same rates during the 1980s. The Real Gross National Product Per

Capita growth rate refects the same trend. For the 1980s the average annual growth rate was 3.5 percent for the United States and 3.71 percent for Japan.12 In the 1990s, will the apparent narrowing of the gap between the countries growth rates continue?

Productivity

Another economic indicator often discussed with alarm is productivity. The commonly used figure is the annual growth in manufacturing productivity. Alarmists point out that the Japanese are increasing their manufacturing productivity at a faster pace than is the United States. While this is in fact the case, it does not tell us at what level of productivity each competitor started.

For example, two automobile manufacturers spray paint automobiles by hand, each taking fifteen minutes per automobile. If one of the manufacturers installs automated spray painting equipment that takes just five minutes to paint one automobile, then the manufacturer with the new equipment is said to have a productivity gain— for painting one automobile— of 200 percent. But what if his competitor had already installed the new spray painting equipment? We certainly wouldn't say that one manufacturer's productivity was out—pacing the others. We would recognize that the manufacturer who installed the new equipment last was just catching up. The point is that quoting annual productivity gains mean little if the bases from which the

measurement is taken has no direct relationship. In many instances the Japanese are just catching up.

For the record, the Japanese have increased their average annual labor productivity in manufacturing—output per hour—at the following rates: 1961 through 1970 by 10.8 percent, 1971 through 1980 by 6.6 percent, and 1981 through 1988 by 5.9 percent.13 The respective United States figures are: 1961 through 1970 by 2.7 percent, 1971 through 1980 by 2.3 percent, and 1981 through 1988 by 4 percent.14 Clearly, the annual rate for Japan is higher than the annual rate for the United States. However, the trend for Japan is down while the trend for the United States is rising. But again, the base from which these numbers are calculated must be considered in order to have an accurate comparison.

Fortunately this spade work has been done: a table shows the value added per work hour in manufacturing for twelve industrial countries relative to the United States. The United States, as the productivity leader, was given a value of one hundred--value-added per work hour--for the years 1963, 1970, 1976 and 1982.15 Japan's value-added per work hour was: 1963-26 percent, 1970-49 percent, 1976-50 percent, and 1982-61 percent.16 While Japan's value added per work hour reached 61 percent of the United States' by 1982, this still left them in eighth place among the world's advanced industrial powers.17 And as noted earlier, their rate of productivity improvement slowed during the 1980s. America's "factory productivity is still the highest in the world."18

Another way of analyzing productivity is to compare real output per worker--in dollars--in relationship to the gross domestic product using the PPP rates. In this comparison Japan also improved significantly, from \$3,640 per worker in 1950 to \$29,575 in 1980.19 Yet this still leaves Japan a distant tenth among the family of industrial nations, with the United States topping the list in 1950 with \$23,979 and again in 1988 with \$41,362.20

This data clearly demonstrates that the United States is the world's leader in productivity. While this is a comforting thought, it must be acknowledged that the Japanese are catching up. The 1990s are shaping up as the decade that will "tell the tale" as to whether the Japanese will match or surpass the United States in productivity.

Japan's rapidly improving productivity may be explaned by the economic theory known as convergence.21 This explains the tendency of productivity in industrial countries to reach the same levels as the competing industrial bases are modernized and workers achieve the same skill levels. The convergence theory is well documented by numerous studies covering the last one-hundred years.22 The rise of Japan from the rubble of World War II to its present position as a formidable economic power is a classic example of convergence in action.

Imports vs Exports

A major concern in the United States today is the deficit between how much the United States imports compared to how much

it exports. The United States is the world's second largest exporter with \$321 billion in exports in 1988.23 The worlds largest exporter is West Germany, with \$323 billion in exports in 1988.24 Japan is third, with \$264 billion in 1988.25 The problem is that the United States, unlike West Germany and Japan, imports more than it exports.

Since 1980 the United States had a negative trade balance and Japan received the lion's share of the blame. This, of course over simplifies the problem. The over-valued dollar made American exports non-competitive on the world market. Further, American businessmen failed to pursue overseas markets for their products. Than a sustained consumer buying spree conspired to drive the United States' trade deficits to a record level of \$169 billion dollars in 1986 and 1987.26 Since 1987, the United States' trade deficit fell to less than one percent of GNP, or an estimated \$55 billion in 1989.27 At the height of the trade deficit, Japan was responsible for 35 percent of the United States' trade short-fall.28

The visibility of manufactured goods from Japan, such as automobiles and electronic consumer products, made Japan the most visible target of American concern. By 1987 Japan's share of the American non-fuel import market fell to 23 percent and continued to decline through 1989.29 At the same time exports from the United States to Japan increased subtantially.30 In fact, even in 1987 the United States had a larger share of Japan's non-fuel market--28 percent-- than Japan had of the United States'market.31

Japan's average annual growth in exports declined during the 1980s from 17.5 percent in the 1960s, 9.7 percent in the 1970s, to 5.2 percent from 1981 to 1988.32 In turn the United States' exports continued to grow at an annual rate of 5.9 percent in the 1960s, 7 percent in the 1970s, and 8.36 percent from 1981 to 1988.33

The fall in Japan's export growth results from maturing markets for Japanese products, stiff competition in those markets by the newly industrialized countries of Asia, and the moving of Japanese production facilities to overseas locations. The United States suffered the same fate in the 1960s and 1970s, but the competitors and locations then were west European countries.

The down side is that while the American exports are growing at a faster pace than Japan's, so are the America's imports. Imports to the United States grew at an annual rate of 10.4 percent between 1981 and 1988, while Japan's averaged 7.94 percent.34 The United States' deficit is primarily driven by imports of manufactured goods; the deficit reached \$139 billion in 1978.35 Imports of fuels represented the only other area of American deficit trade. The deficit in this area declined steadily during the 1980s and in 1988 fell to \$33 billion.36

It is apparent that if the United States is to solve the trade deficit problem, a reduction of imports and an increase of exports is necessary. A balance between these two options is probably the better course. The trends look promising. During the first half of 1989 exports increased 17 percent and "U.S.

manufacturers have all but recaptured the global-market share they lost in the early 1980s."37

Even though the United States trade position with Japan is improving, there are still structural and social impediments in the Japanese markets that need to be overcome. Recent negotiations with Japan were successful in opening some markets. The United States must continue to pressure Japan for a truly free trade environment. Success in these negotiations will be beneficial to both parties.

Domestic Savings, Capital Spending, And R&D Ivestment

The domestic savings rate is one economic indicator that all economists agree is most important to a nation's long term competitiveness. Businesses borrow savings to invest in new plants and equipment to improve their productivity. They borrow savings to invest in research and development in order to improve old products and processes and to invent new ones, because aging plants and products soon lose market share to new ones.

Today, technology is advancing at an unprecedented pace.

Technology and new products no longer last for decades before they become obsolete. As a result, companies must develop new technology and products continously to remain competitive. In the current business environment, the need for capital to stay ahead of the new product development curve is greater than at any time in history. The long and short of it is that without

capital to continuously invest in modern facilities and product development, a nation's global competitiveness will decline quickly.

From the general agreement among economists about the preceding statements flows divergent opinions about how much savings is enough and where it should originate. Some economists argue that the inflow of capital from other countries improves the productivity of the American industrial base.38 In a Public Interest article, Herbert Stein states that "--investment of productive capital in the United States will be equal to private savings less the budget deficit plus the inflow of foreign capital."39 He argues that foreign investment in the United States confirms that the United States is a good place to invest and that the amount of foreign investment frees up a like amount of domestic capital for investment.40 While the mechanism certainly works in the manner he outlines, the important factor is how the capital is used. If the investment is in new plant and equipment and/or R&D, no one would dispute that foreign inflow of capital would be good for American competitiveness. The problem is that no one agrees on where the capital goes and what the long term impact is on the American economy.

What we can agree on is that Japan is generating enormous sums of capital. These surpluses are being invested in new plants and equipment at an unprecedented rate. In a November 1989 article in <u>Forbes</u> magazine, Andrew Tanzer states, "The numbers are astounding. Last year, with half the population and

60 percent of the GNP of the U.S., Japan surpassed the U.S. for the first time in private capital investment in dollars terms. This year the gap will widen further: Courtis [an econmist at Deutsche Bank Capital Markets, Asia] estimates corporate investments in Japan will account for a record 24 percent of GNP, compared with 10 percent in the U.S. Comments consultant James Abegglen: 'Japanese companies will get more competitive, productivity will rise faster, and they'll take market share'."41

No attempt is made here to separate R&D investment from capital expenditures, since they are often inexorably linked.

New products and processes are often developed because of new equipment purchases; conversely, new equipment is purchased as a result of new product development. Here we face the "chicken and egg" dilemma.

So where does Japan generate these massive amounts of capital? And why hasn't the United States done likewise? The answer as to where Japan's surpluses come from is: trade surpluses and domestic savings. Japan's current account surpluses for 1989 totalled \$60 billion. This is a decline from a high in 1986 and 1987 of \$90 billion.42 The United States, on the other hand, had a current account deficit during the early 1980s. This deficit has declined during the last three years.

Japan's domestic savings rate is legendary. While Japan's savings rate averaged 16 percent of GDP during the last decade,

America's saving rate was an anemic 5 percent of GDP.43 Japan's savings rate is high because the government established

incentives to save. But the average Japanese, as discussed earlier, does not feel wealthy. The United States' tax structure favors consumption and debt as opposed to savings.

So, what are the long term trends in savings, capital spending, and R&D investment for the United States and Japan? There are indications that Japan will become a net importer by the year 2000 because of a "hollowing out" of Japanese industry as production facilities are moved overseas.44 The aging Japanese society and an awakening consumer will spend more on health care and consumer goods and save less.45 At the same time, America's trade deficit is falling and the population bubble known as the "baby boom generation" is reaching the age where savings traditionally rise.46

The implications of the current capital spending spree in Japan are clear. American manufacturers will face a formidable competitor in the next few years. Increased savings rates in the United States and a declining trade deficit will free up more capital for investment. Where this capital is spent will be of critical importance to the long term health of the American economy.

CHAPTER IV ENDNOTES

- 1. Aaron L. Friedbreg, "The Strategic Implications of Relative Economic Decline," <u>Political Science Quarterly</u>, Vol. 104, No. 3, 1989, p. 403.
 - 2. Ibid.
 - 3. Ibid.
 - 4. Ibid.
- 5. Sylvia Nasar, "Taking the Long View of America's 'Decline'," <u>U.S. News & World Report</u>, 8 January 1990, p. 58.
- 6. Kenneth J. Dillion, "Worlds in Collision: The U.S. and Japan Beyond the Year 2000, p. 5.
 - 7. Ibid.
- 8. P. Lewis Young, "Does the Future Belong to Japan?", Asian Defence Journal, February 1988, p. 12.
- 9. U. S. Central Intelligence Agency, <u>Handbook of Economic Statistics 1989</u>, p.30.
 - 10. <u>Ibid.</u>, p.33.
 - 11. Ibid.
 - 12. <u>Ibid.</u>, p.34.
 - 13. <u>Ibid.</u>, p.55.
 - 14. Ibid.
- 15. David Dollar and Edward N. Wolff, "Convergence of Industry Labor Productivity Among Advanced Economies, 1963-1982," The Review of Economics and Statistics, Vol. 70, No.4, November 1988, p. 552.
 - 16. Ibid.
 - 17. <u>Ibid</u>.
 - 18. Nasar, p. 41.
 - 19. Nasar, p. 58.

- 20. Ibid.
- 21. Dollar and Wolff, p. 549.
- 22. <u>Ibid</u>.
- 23. U.S. Central Intelligence Agency, p. 138.
- 24. Ibid.
- 25. Ibid.
- 26. <u>Ibid</u>., p. 150.
- 27. Nasar, p. 41.
- 28. Young, p.10.
- 29. U.S. Central Intelligence Agency, p. 157.
- 30. Sabur Okita, "Japan's Quiet Strength," Foreign Policy, No. 75, Summer 1989, p. 128.
 - 31. U.S. Central Intelligence Agency, p. 157.
 - 32. <u>Ibid.</u>, p. 55.
 - 33. <u>Ibid</u>.
 - 34. <u>Ibid</u>.
 - 35. <u>Ibid</u>. p. 150.
 - 36. Ibid.
 - 37. Nasar, p. 41.
- 38. Herbert Stein, "Problems and Non-Problems in the American Economy," The Public Interest, No. 97, Fall 1989, p. 57.
 - 39. Ibid. p. 58.
 - 40. Ibid.
- 41. Andrew Tanzer, "How Do You Shut the Darn Thing Off?", Forbes, 13 November 1989, p. 15.
- 42. "America's Japanophobia," <u>The Economist</u>, 18 November 1989, p. 15.
 - 43. Dillion, p. 5.

- 44. Fred Hiatt, "Japan: Nowhere to Go but Down," The Washington Post, 17 September 1989, p. A33.
 - 45. <u>Ibid</u>.
- 46. "On the Economic Implications of Demographic Change in the United States," <u>Population and Development Review</u>, Vol. 15, No. 2, June 1989, p. 385.

CHAPTER V

CONCLUSIONS

Demographic Changes

The United States and Japan share many demographic trends but are diverging in others.

Japan already has a tight labor market. A declining birth rate, an aging population, and a strict immigration policy will severely impact the expansion of Japanese businesses

Japan can offset the labor shortage to some extent by increasing the traditional retirement age and by employing more women. Both of these courses of action, however, face strong political and social barriers. Additionly, Japan's population density per unit of arable land is the highest in the world; it leaves little room for population growth that could offset labor shortages.

The United States has a higher birth rate than Japan, lenient immigration policies, and percentage-wise a smaller aging population. The United States also has a traditionally higher retirement age than Japan; also, the United States is already employing women in responsible business positions.

Labor shortages will not hamper the expansion of United

States' businesses. Land for a growing population is not a problem for the United States.

Japan's aging population will consume a larger percentage of savings, leaving less for investment. Pensions and medical benefits programs are currently under-funded; they will require enormous infusions over the next three decades. There will be fewer workers to foot the bill for these increased costs.

The United States will experience a rise in the number of elderly, but to a lesser degree than Japan. Pensions and medical care are currently funded to a higher degree in the United States than they are in Japan. Because America's population is growing at a faster pace than Japan's, there will be more workers to help fund elderly programs. American workers also work more years than their Japanese counterparts; thus they pay into social benefits programs for a longer period of time and draw on them for a shorter period.

Social Changes

The "oneness" between Japanese government, industry and the general population is developing fissures. MITI, which once set the nation's industrial goals, is losing some influence.

Industry now pursues its own agenda based on corporate goals, not national ones. The industrial unions, once separate and closely tied to the corporation, are beginning to nationalize. They are seeking a larger share of the corporate wealth for the Japanese

worker. Women, who traditionally occupied a lower rung on the social and corporate ladder, are demanding pay and job equality. The general population is beginning to question the uneven distribution of wealth. They are now all aware of Japan's wealth in relation to that of other industrial nations, but they don't see it reflected in their own living conditions. Most of them cannot afford decent housing. Food and consumer prices are high. The LDP, which maintained an overwhelming political majority for decades, is being successfully challenged by other parties. In particular, the tax advantages and import restrictions enjoyed by farmers are seen by other Japanese as the culprits responsible for the high cost of housing and food. The restrictions are under attack by Japan's trading partners, especially the United States; further the LDP, unable to satisfy any of the parties, is losing support from all. The increasing urbanization of the Japanese population is creating political diversity as each group strives to raise its demands to the national agenda level. The work ethic is also changing. The younger generation, and to some degree the older generation, are demanding more leisure time and challenging the vaunted traditional Japanese life time employment system.

These changes in the Japanese social fabric will have a dramatic effect on the economy. Formerly, the nation followed a single goal mapped out by government and industry, now competing demands will struggle for national attention and resources.

Japan's move from an essentially bi-polar [government and industry] power base to a multi-polar [government, industry,

urban verses rural, national unions and consumers] power base brings with it the promise of a more diverse economy less susceptible to changes in the world market place. At the same time, it raises the possibility of political and social unrest if competing demands are not satisfied. The Japanese have no experience in the management of changing cultural values. How well they do will determine the long term—ten to twenty years—health of their economy.

The United States, on the other hand, has already experienced these changes. Or, as in the case of women's equality in the work place and society, the United States is well along the path of change. The competition between diverse groups is not new to Americans; it is a tradition reaching back to the founding of the nation. The diversity of ideas and people is in fact one of America's major strengths, making the nation a sea of social and economic innovation washing on the shores of the world.

Economic Change

The economic trends in Japan and the United States are converging. Japan's GPN growth is slowing while the United States is returning to traditional levels. Japanese productivity growth is declining while, again, the United States has returned to historical levels. The relative growth of both economies will stabilize over the next several years. That is, they will grow at approximately the same rate.

Japan's rate of export growth is slowing. At the same time, imports are expanding. These trends will continue for the next several years. When and if the Japanese export explosion begins anew will depend on the results of current investment in new technology, the amount of production capacity Japanese corporations move overseas, and the competition from other industrial countries, including the United States. Given these constraints, it is unlikely that Japan can match its previous growth rates for any sustained period.

United State's exports rebounded dramatically during the last three years. The de-valued dollar and a new focus by American businessmen on overseas markets were the primary reasons for export improvements. As the world's low-cost producer, America should continue to maintain market share.

United States imports continue to outpace exports, but the gap is narrowing and should continue to do so over the next several years.

Japan's savings rate continues to one of the highest in the industrial world. Their high savings rate coupled with their trade surplus has Japan awash in capital. Conversely, The United States is a net importer of capital because of a low savings rate and a trade deficit.

Japan's savings rate should decline as the population ages.

American's savings rate should increase as the "baby boom"

generation moves through its most productive years. Japan's

trade surplus will decline, and the United States' trade deficit

will narrow. Japan has no foreseeable capital formation problems. The United Statess' position is improving.

While Japan has certainly reached economic super power status, it is showing the slower growth trends of a maturing industrial economy. Growth will certainly continue but at a more sedate pace. Social and demographic changes will challenge Japanese business on the productivity front.

The "economic war" is certainly not over. Although the United States has been challenged in the economic arena, it has not been vanquished. On the contrary, The United States is strengthening on all fronts.

Japan has reached economic super-power status. But social and demographic changes within Japan, competition from the other world industrial powers, and a resurgence of United States' economy will prevent Japan from over taking the United States and diminishing her critical economic element of power. Forewarned is fore-armed!

BIBLIOGRAPHY

- 1. "America's Japanophobia." <u>The Economist</u>, 18 November 1989, pp. 15-16.
- 2. Armstrong, Larry. "Takeshita Clears the Deck for Economic Reform." <u>Business Week</u>, 26 December 1988, pp. 80-85.
- 3. Audretsch, David B., and Yamawaki, Hideki. "R & D Rivalry, Industrial Policy, and U.S. Policy--Japanese Trade." The Review of Economics and Statistics, Vol. 36, No. 3, August 1988, pp. 438-446.
- 4. Borrow, Davis B. "Japan in the World: Opinion from Defeat to Success." <u>Journal of Conflict Resolution</u>. Vol. 33, No. 4, December 1989, pp. 571-602.
- 5. "The Changing Role of Women in Japan." <u>Japan Report</u>, January 1988, p. 6.
- 6. Council of Economic Indicators for the Joint Economic Committee. Economic Indicators-October 1989. Washington: U.S. Government Printing Office, 1989.
- 7. Clark, Rodney. <u>The Japanese Company</u>. New Haven: Yale University Press, 1979.
- 8. Dillon, Kenneth J. Worlds in Collision: The U.S. and Japan Beyond the Year 2000. Washington: Center for the Study of Foreign Affairs, 2 April 1989. Pp. 3-27.
- 9. Dollar, David and Wolff, Edward N. "Convergence of Industry Labor Productivity Among Advanced Economies, 1963-1992." The Review of Economics and Statistics, Vol. 70, No. 4, November 1988, pp. 459-478.
- 10. "On the Economic Implications of Democratic Change in the United States." <u>Population and Development</u>, Vol. 15, No. 2, June 1989, pp. 379-381.
- 11. Eiichi, Shindo. "Frozen in the Cold War: Another Look at Japan--U.S. Friction." <u>Japan Quarterly</u>, Vol. 36, No. 3, July-September 1989, pp. 375-381.
- 12. Fallows, James. "The Hard Life." The Atlantic, March 1989, pp. 16-26.

- 13. Friedberg, Aaron L. "The Strategic Implications of Relative Economic Decline." <u>Political Science Quarterly</u>, Vol. 104, No. 3, 1989, pp. 401-412.
- 14. Fuhrman, Janice. "Mars Unwraps Secret of Japanese Market." <u>Sunday Patriot News [Harrisburg]</u>, 3 December 1989, pp. F4-F5.
- 15. Gibney, Frank. Miracle of Design: New Reason Behind Japan's Economic Success. New York: Times Books, 1982.
- 16. Glazer, Nathan. "The Enigma." The New Republic, 10 July 1989, pp. 13-14.
- 17. Hiatt, Fred. "Japan: Nowhere to Go But Down." The Washington Post, 17 September 1989, pp. A33-A36.
- 18. Janow, Merit E.; Peter, Thomas; and Wheeler, Jimmy W. The Competition, Dealing with Japan. New York: Praeger, 1985.
- 19. Japan Statistic Bureau. <u>Japan: Statistical Yearbook,</u> 1989. Tokyo: August 1989.
- 20. "Japanese Population Trends: Births Declining--Society Aging." Japan Report, Vol. 34, No. 7, July-August 1988, pp. 1-2.
- 21. Jiro, Arioka. "Quieting Social Security Nightmares." Japan Quarterly, Vol. 36, No. 2, April-June 1989, pp. 141-145.
- 22. Kaorw, Kobayashi. "That Yen for Power," <u>Japan</u>
 <u>Quarterly</u>, Vol. 36, No. 2, April June 1989, Pp. 214-217. NOTE:
 Quote from Aron Vincer's book, <u>Emerging Power of Japanese Money</u>,
 Tokyo, 1988.
- 23. Kirby, Stuart, and Saso, Mary. <u>Japanese Industrial</u> <u>Competition to 1990</u>. Cambridge: Abt Books, 1983.
- 24. Kurtenbach, Elaine. "Tight Economic Ties Bind Wholesaler to Retailer in Japan." <u>Sunday Patriot News</u> [Harrisburg], 3 December 1989, p. F4.
- 25. Mitsunobu, Sugiyama. "Should Foreign Workers Be Welcome." <u>Japan Quarterly</u>, Vol. 35, No. 3, July-September 1988, pp. 260-265.
- 26. Morita, Akino and Ishihara, Shintaro. <u>The Japan That Can Say "NO"</u>. Tokyo: Kobunsha, Kappa-Homes, 1989.
- 27. Nasar, Sylvia. "Taking the Long View of America's 'Decline'." <u>U.S. News and World Report</u>, 8 January 1990, pp. 50-60.
- 28. Okita, Saburo. <u>The Developing Economies and Japan</u>. Japan: University of Tokyo Press, 1982.

- 29. Okita, Saburo. "Japan's Quiet Strength." Foreign Policy, No. 75, Summer 1989, pp. 128-145.
- 30. Organization for Economic Co-Operation, <u>OCED Economic Surveys</u>, <u>Japan</u>. Paris: 1988.
- 31. Prestowitz, Clyde V., Jr. <u>Trading Places: How We Allowed Japan to Take the Lead</u>. New York: Basic Books, 1988.
- 32. Sethi, Parakash S.; Namiki, Nobuaki; and Swanson, Carl E. The False Promise of the Japanese Miracle. Boston: Pitman, 1984.
- 33. Sivard, Ruth. <u>World Military and Social Expenditures</u>, 1989. Washington: World Priorities, 1989.
- 34. Stein, Herbert. "Problems and Non-Problems in the American Economy." The Public Interest, No. 97, Fall 1989, pp. 56-70.
- 35. Takeshi, Sasaki. "The LDP Feeters in the Polotical Balance." <u>Japan Quarterly</u>, Vol. 36, No. 4, October-December 1989, pp. 375-380.
- 36. Tanzer, Andrew. "How Do You Shut the Darn Thing Off?" Forbes, 13 November 1989, pp. 38-42.
- 37. U.S. Central Intelligence Agency. <u>Economic and Energy Indicators</u>. DI EEI 89-022. Washington: 3 November 1989.
- 38. U.S. Central Intelligence Agency. <u>Handbook of Economic Statistics</u>, 1989. Washington: U.S. Government Printing Office, September 1989.
- 39. U.S. Central Intelligence Agency. The World Factbook, 1989. Washington: May 1989.
- 40. U.S. Department of Commerce. <u>Statistical Abstracts of the United States</u>, 1989. 109th Edition, Washington: U.S. Government Printing Office, January 1989.
- 41. U.S. Department of Labor. <u>Foreign Labor Trends: Japan</u>. FLT 89-57. Washington: U.S. Government Printing Office, 1988-1989.
- 42. U.S. Department of Labor. <u>Handbook of Labor</u>
 <u>Statistics</u>. Bulletin 2340, Washington: U.S. Government Printing
 Office, August 1989.
- 43. U.S. Department of Labor. <u>Labor Law and Practice</u>. BLS Report 376. Washington: U.S. Government Printing Office, 1970.

- 44. Weinberger, Caspar W. "Japan Revisited." <u>Forbes</u>, 13 November 1989, p. 31.
- 45. Worldmark Encyclopedia of the Nations. 6th Edition. Worldmark Press. 1988. pp. 149-164: "Japan."
- 46. Young, Lewis P. "Does the Future Delong to Japan." Asian Defence Journal, Febuary 1988, pp. 4-18.
- 47. Yoko, Sano. "Seven Mystries of Long Working Hours."

 <u>Japan Quarterly</u>, Vol. XXXV, No. 3, July-September 1988, pp. 248252.